

Information Commissioner's Office

ICO Innovation Hub Project Report



“The continuing datafication of our economy presents opportunities for innovation but also challenges for safeguarding information rights and privacy. The UK Government set up the Regulators’ Pioneer Fund (RPF) to back bold, creative and original approaches by regulators that will support businesses in bringing innovative products and services into the economy, thus benefitting investment and productivity as well as consumers.

With funding from the RPF, the ICO developed its Regulators’ Business Innovation Privacy Hub through comprehensive engagement with other regulators. The support the Hub offers UK regulators is helping better embed data protection and privacy in the design and application of regulation across many sectors of the economy. We were delighted by the ICO’s decision to make permanent the Hub and welcome this report, which sets out the ICO’s reflections and enables others to learn from them.”

– Better Regulation Executive

Contents

4	Information Commissioner’s foreword
5	Executive summary
6	About the Regulators’ Pioneer Fund
7	About the Innovation Hub
8	The Innovation Hub’s objectives
10	Innovation Hub engagement statistics
11	Workstreams
12	Case study: FCA Global Financial Crime and Anti-Money Laundering TechSprint
13	Case study: Open Banking Implementation Entity
15	Case study: SRA Legal Access Challenge
17	Case study: Medicines and Healthcare products Regulatory Agency (MHRA)
19	Case study: Gambling Commission
20	How we did it
24	Next steps
26	Ten top tips for innovators

Information Commissioner's foreword

Good regulation can help make good businesses. Regulation benefits businesses by making clear what rights and protections consumers expect and are entitled to, and by reassuring consumers that there are checks and balances in place to ensure innovation can be trusted.

As the UK's data protection regulator, the ICO is especially aware of this responsibility. Data has moved from being the trail we leave behind us as we go through our lives to being the very medium through which we are living our lives. Digital innovation enables economic growth, from app development to AI, from public service delivery to big data, but it relies on consumers trusting their personal data will be treated fairly, lawfully and transparently. Such trust relies on organisations understanding their responsibilities, and appreciating the value of designing in data protection at an early stage.

As an office, we are always looking for improved ways to offer that advice and support. The Innovation Hub was set up to collaborate with other regulators, offering data protection expertise to a greater breadth of innovative businesses.

This wide-reaching approach is reflected in the projects the Hub has so far been able to support. Highlights detailed in this report include assisting the Financial Conduct Authority's regulatory sandbox, advising the Medicines and Healthcare products Regulatory Agency on the use of synthetic datasets and working with the Solicitors Regulation Authority to widen the public's access to legal advice and support.

It is with these successes in mind that I have committed to retaining the Innovation Hub on a permanent basis, so we can continue to support innovation through our partnerships with other regulators.

I must thank the BEIS Regulators' Pioneer Fund for their initial funding for this project. I also thank our regulatory partners, who consistently demonstrate the open and collaborative approach that characterises modern regulation in the UK. We look forward to continuing our relationship with them, and with the businesses we help.



Elizabeth Denham
Information Commissioner



Executive summary

- In November 2018 the ICO set up the Regulators' Business Innovation Privacy Hub (the Innovation Hub).
- The project's aim is to partner with other regulators, providing expert support to businesses on building data protection compliance into innovative products and services.
- Initial project funding came from the BEIS Regulators' Pioneer Fund (RPF), which aims to create a regulatory environment where businesses have the confidence to invest and innovate – benefitting consumers and the wider UK economy.
- The Innovation Hub promotes good data protection practices in innovative firms and start-ups by using 'data protection by design and default', a key element of the GDPR.
- Data protection is an opportunity for innovative businesses instead of a barrier; helping to create products which are fit-for-purpose, reducing the likelihood of a data breach, and improving consumer confidence and trust.
- We primarily concentrated on three sectors which have seen significant steps in technological development – finance, legal, and health – and collaborated in work requiring a cross-regulatory focus on consumer vulnerability.
- Using an approach referred to by Nesta as 'anticipatory regulation', the Innovation Hub provides advice to businesses who are participating in other regulators' sandboxes, or taking part in innovative 'Challenges' and events.
- We also work with regulators to increase their awareness of data protection, providing training and helping them to draft guidance for firms in their sectors.
- As a new model of business engagement the Innovation Hub has explored a range of collaboration and communication methods to promote the project, including engagement with the UK Regulators' Network.
- This model of engagement has required a proactive approach to risk, highlighting that Innovation Hub support is not approval of a business or its products, and ensuring that this supportive, enabling arm of the ICO does not compromise our powers as a regulator.
- Developing a broad knowledge of the connection between data protection and innovation has helped inform our future engagement with businesses, including how to provide effective advice and support.
- We have created 'Ten Top Tips for Innovators', for use by any innovative firm seeking to develop products and services using personal data.
- The work of the Innovation Hub will continue beyond the RPF funding period, demonstrating the ICO's commitment to innovation.
- We will expand our collaboration with other regulators, and embark on new projects with other organisations like Catapults, academic institutions, and private-public innovation partnerships. This includes continuing to leverage cross-regulatory links to streamline regulatory functions and make sure data protection remains a priority.

About the Regulators' Pioneer Fund

Established by the Department for Business, Energy and Industrial Strategy (BEIS), the Regulators' Pioneer Fund (RPF) aims to create a regulatory environment that gives pioneering businesses the confidence to invest, innovate, and deploy emerging technologies for the benefit of consumers and the wider economy.



Department for
Business, Energy
& Industrial Strategy

Innovate UK

The fund intends to make the UK the world's most innovative economy through the development and promotion of cutting-edge regulatory practices, either within a specific sector or by bringing regulators together to explore cross-cutting issues.

In 2018, £10 million was made available to regulators with proposals for initiatives to help businesses bring innovative products and services to market. Fifteen regulators in total were awarded funding, with the ICO receiving £537,000.

The competition overview and more about its connections to the UK's Grand Challenges can be found on the [Innovation Funding Service website](#).

About the Innovation Hub

The ICO's successful bid led to the creation of the Regulators' Business Innovation Privacy Hub (the Innovation Hub).

The Innovation Hub collaborates with other regulators on initiatives that help bring about innovation. We provide expert support to businesses participating in these initiatives, helping them build data protection compliance into their projects at an early stage. We give them the confidence to create products and services without the perception that complying with the legislation creates a barrier to innovation.

This new model of embedding within other regulators' programmes distinguishes the team from the successful [ICO Sandbox pilot](#).

The Innovation Hub also collaborates with regulatory bodies to help them embed information rights practice in their own procedures when supporting business innovation.

As a cross-sectoral issue, data protection is a key consideration where personal data is being processed – be it in FinTech, LawTech, or other areas seeing fast technological growth. We provide clarity to businesses and regulators on how data protection legislation applies to what they do, while acknowledging that innovative products may raise new questions around the interpretation of data protection law and regulation.

The work of the Innovation Hub reflects the ICO's focus on innovation, our desire to support business, and our strategic goal to increase the public's trust and confidence in how their personal data will be used (see the [ICO Information Rights Strategic Plan for 2017-2021](#)).

Promoting the benefits of taking a 'data protection by design' approach, the Innovation Hub's key message is that the GDPR should not be a barrier to innovation. By protecting information rights and complying with the data protection principles, businesses can create a product or service which is more likely to be effective and fit-for-purpose, and increase their company reputation through consumer confidence.

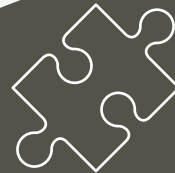
The Innovation Hub's objectives



Promoting good data protection practice within businesses who want to innovate.



Contributing positively to public trust and confidence about businesses' handling of their personal data.



Developing the ICO's knowledge of how data protection and innovation can work together, and feeding into the ICO's Sandbox and policy functions to support business innovation.



Enhancing other regulators' capacity to address data protection issues in their own sectors.



Publishing new advice and guidance for innovating businesses.

“Input from the Hub was an important component of the support provided to finalists, and one of the most valued aspects. The support provided to finalists enabled them to accelerate the progress they make during the six month Challenge period working on their solutions to improve access to legal services for individuals and small businesses.”

– Nesta, SRA Legal Access Challenge

“Our work with the Innovation Hub is a great example of inter-sector collaboration between a start-up, industry law firm and regulator.”

– Legal Utopia, SRA Legal Access Challenge

“The Innovation Hub allowed us to get on with product development whilst safe in the knowledge that what we were building and planned to do was in line with the relevant rules and regulations.”

– Formily, SRA Legal Access Challenge

Innovation Hub engagement statistics



Workstreams

Shaped by the requirements of the BEIS funding, all work has fulfilled three requirements:

1. **Collaborating** with regulators
2. **Supporting** business innovation
3. **Providing** public benefit

The work evolved organically into a focus on three sectors: finance and ‘open’ ecosystems, the legal sector, and health. As a result of the ICO’s recent membership of the [UK Regulators’ Network](#) (UKRN), we also engaged with other regulators about vulnerable consumers.

Finance and ‘open’ ecosystems

- The Financial Conduct Authority (FCA) has an established Innovation service, which includes a Regulatory Sandbox for firms ready to test products, and a Direct Support function providing tailored advice to firms seeking FCA authorisation. The Innovation Hub provided support on data protection matters to companies receiving assistance from the Direct Support function, as well the fifth cohort of businesses in its Regulatory Sandbox.
- The Innovation Hub delivered real-time expertise at the 2019 FCA TechSprint event; and [responded to a call for input on the concept of a cross-sector sandbox](#).
- As part of the ICO’s wider relationship with the Open Banking Implementation Entity (OBIE), the Innovation Hub collaborated on writing guidance on processing personal data for actors within the open banking ecosystem.

“The training provided by the Innovation Hub has received overwhelmingly positive feedback. Our tutor was very knowledgeable and delivered the training in a way that is interesting, engaging and easy to understand. This is truly remarkable given the complexity of the topics covered and the virtual format of a Skype meeting.”

– FCA Innovate

Case study:

FCA Global Financial Crime and Anti-Money Laundering TechSprint

In July 2019 the Innovation Hub attended the FCA's [Global Anti Money Laundering and Financial Crime TechSprint](#), providing support to competitors building solutions that allow detection and prevention of financial crime without revealing personal data.

Staff from the Innovation Hub and the ICO's Technology Policy team were present for the duration of the event, giving advice to 10 teams working on innovative products that deployed privacy enhancing technologies (PETs).

Participants were offered face-to-face sessions to fill knowledge gaps and discuss compliance with privacy legislation, ensuring that they were considering a 'data protection by design' approach and upholding individuals' rights in their proposals.

The event concluded with a prize-giving ceremony, with awards given to those teams assessed as excellent in terms of market-readiness, creativity and consideration of data protection issues.

The Innovation Hub engaged in further discussion with teams who wished to develop their ideas further after the event, and contributed to the FCA's post-TechSprint report.

Maintaining a close working relationship with the FCA, we have agreed to support upcoming TechSprints and workshops. If any of the teams choose to use the FCA's regulatory sandbox to test their products, they can receive bespoke support from the Innovation Hub as part of our ongoing 'gateway' arrangement with the FCA.

A blog written by Simon McDougall, the ICO's Executive Director for Technology and Innovation, covered [lessons learned from the Innovation Hub's support at the FCA Techsprint in July 2019](#). This blog was republished by DataIQ and the New Statesman – demonstrating the relevance of our work and wider interest in our activities.

Case study:

Open Banking Implementation Entity

The Innovation Hub has given ongoing support to the work of the Open Banking Implementation Entity (OBIE). The OBIE was set up in response to an Order by the Competition and Markets Authority (CMA) following its [retail banking market investigation](#).

The CMA's investigation concluded that 'older and larger banks do not have to compete hard enough for customers' business, and smaller and newer banks find it difficult to grow'.

The underlying idea of open banking is that users can get better deals and can more easily manage their money through innovative products and services such as comparison tools, account switching facilities, automatic savings apps and financial overview dashboards. It aligns to an extent with the right to the data portability found in the GDPR.

Although Open Banking was instigated by other pieces of legislation, the GDPR is central to much of the data processing within the system.

The Innovation Hub managed the ICO's relationship with the OBIE by:

- participating and advising on data protection at roundtable events about customer experience, consent and regulation;
- coordinating with the OBIE and FCA to provide advice where the GDPR needs considering in tandem with the CMA Order and European legislation on payment services;
- observing at the OBIE Steering Group and associated working groups; and
- attending relevant conferences, building knowledge and connections with open banking stakeholders.

Being this closely involved has allowed the ICO to gain a deeper understanding of the core functions and the implications of the changes for customers and businesses, and influence thinking within the ecosystem about user experience and [how actors within the ecosystem can maintain compliance with the GDPR](#).

“The result of our collaboration with the Innovation Hub was that this work has genuinely broken new ground in how we address this complex area. This has given the Open Banking Implementation Entity a firm foundation to build upon.”

– Open Banking

Because of its work with the OBIE, the ICO was approached for its input on two similar 'open' initiatives. The Innovation Hub worked with the FCA on its enquiries into the viability of open finance, which would extend the principles and systems of open banking into a wider range of financial products and services. We also assisted Ofcom with its draft proposal for open communications, giving input on how the GDPR might affect implementation.

Legal sector

- The Innovation Hub supported delivery of the Legal Access Challenge, a joint initiative between the Solicitors Regulation Authority (SRA) and Nesta, providing advice and guidance to the challenge participants and delivering a workshop which outlined key data protection considerations for innovators.
- The SRA referred Legal Utopia, a social LawTech venture, for assistance with the development of an app designed to signpost individuals to relevant legal advice and support. The Innovation Hub provided advice on data protection considerations relating to automated decision-making.

Case study:

SRA Legal Access Challenge

The SRA received £700,000 from the RPF to collaborate with Nesta to create the [Legal Access Challenge](#), a legal technology fund. Its aim was to see how the legal services market could use technology to make services more affordable and accessible.

The challenge supported eight finalists whose innovations will help individuals, families and small businesses get the legal support they need.

These include a legal advice chatbot, and several platforms to assist individuals in circumstances such as:

- group litigation cases;
- allowing domestic abuse sufferers to create an online non-molestation order; and
- generating the documentation required by a court for a divorce without the need to use a solicitor.

We delivered the key message that all new tech-based initiatives using personal data – especially those employing machine learning and artificial intelligence – will need to consider data protection and privacy requirements from the very start.

“The Legal Access Challenge benefited enormously from the ICO’s collaboration. To have the level of knowledge available from almost the outset of the project was invaluable.”

– Solicitors Regulation Authority

Health and care

Engagement with the health sector led to work with stakeholders in a number of areas relating to handling personal data in health and care:

- Advising the Medicines and Healthcare products Regulatory Agency (MHRA) on the development and use of synthetic datasets.
- Collaborating with Reform and NHSX in the development of a detailed picture of patient data flows and associated challenges and risks including data protection.
- Providing advice to NHSX on the data protection considerations related to the development and regulation of AI, looking at patient data from its creation for direct care to the processes for accessing data for research purposes. The regulators worked together to identify potential risks and perceived regulatory barriers when using AI with patient data.
- Contributing to cross-government events and roundtables about regulatory reform, ensuring data protection remained a key point of awareness and discussion.

“Having a specified person with expertise, and the time to engage with us in detail, to contact in the Innovation Hub made it quicker and easier to ensure that we properly considered the data protection and privacy aspects of our work at every stage.”

– NHSX

Case study:

Medicines and Healthcare products Regulatory Agency (MHRA)

The [Clinical Practice Research Datalink](#) is the MHRA's specialist research services centre and data custodian for anonymised primary care data encompassing around 50 million patients, including 15 million currently registered patients. CPRD requested advice about the production and use of synthetic datasets intended to be made available to innovators, who will trial their algorithms against the synthetic datasets to see if their algorithms produce appropriate results.

These algorithms may be used to predict various conditions, aiding early interventions which are less medically intrusive to the patient, therapies, and lifestyle changes.

Testing of algorithms is vital to assess the algorithm is producing medically accurate results performance, but innovators are often unwilling to disclose their algorithms for testing as they constitute important intellectual property.

We advised on data preparation, bias, and the risks of reidentification from synthetic data.

This work has led to the development of two synthetic datasets focused on cardiovascular risk and Covid-19 risk, which are accessible to researchers via an application to CPRD.

Our engagement with the MHRA will continue via NHSX AI working groups.

“One direct consequence of the ICO Innovation Hub’s advice was that we agreed early on, with the support of the project steering group, that we would not merely upload the synthetic data on a public website for download without any access controls.”

– MHRA

Vulnerable individuals

New and emerging technologies have the potential to both support vulnerable individuals and risk placing them at further disadvantage. The Innovation Hub has actively worked with other regulators through the UKRN, particularly in its Vulnerable Consumers sub-group.

We led discussions on the interaction between vulnerability and information rights, and advised on data protection issues arising from innovative approaches to vulnerability intended to improve outcomes for consumers.

Work also took place with the Gambling Commission on improving support for those at risk of harm from gambling. Supportive of initiatives which seek to protect vulnerable individuals, we engaged with a range of industry stakeholders and made sure data protection was placed at the centre of the proposals.

Case study:

Gambling Commission

The Innovation Hub supported the Gambling Commission's [Single Customer View \(SCV\) Challenge](#), which considered how to protect customers vulnerable to harm from gambling.

The emergence and ease of online gambling in recent years has made it more difficult for individuals at risk of harm to restrict any problematic gambling behaviours. The SCV initiative represents a joined-up approach, and the use and development of new technologies in the gambling sector to better identify and support such individuals.

The Challenge took the form of a two-day event where over 100 experts from across the sector came together to make progress on developing a joined-up solution.

We presented a workshop on GDPR compliance requirements for SCV which focused on finding the correct lawful basis, sharing the minimum amount of data, and ensuring data is not repurposed. We also took part in discussions about drawing up a Code of Conduct for SCV and the practicalities around setting up a sandbox to test different methods of enabling SCV before deployment.

The Gambling Commission's engagement with the ICO, gambling operators, and developers of technological solutions has led to a deeper understanding of data protection considerations. As a result of our

involvement with this project the Innovation Hub contributed to the House of Lords Select Committee's work looking at possible reform of the Gambling Act.

We continue to work with the gambling industry to ensure that innovations and interventions intended to prevent harm will still be compliant with individual rights and freedoms as described in the GDPR. This will include joining up with the ICO's other innovation services, sandbox, and Codes and Certifications teams.

“The ICO presence at our industry event was invaluable in progressing the challenge.”

– Gambling Commission

How we did it

Communicating effectively

A new team with a unique remit, the Innovation Hub was keen to create a brand to help it stand out as an innovative and professional service.

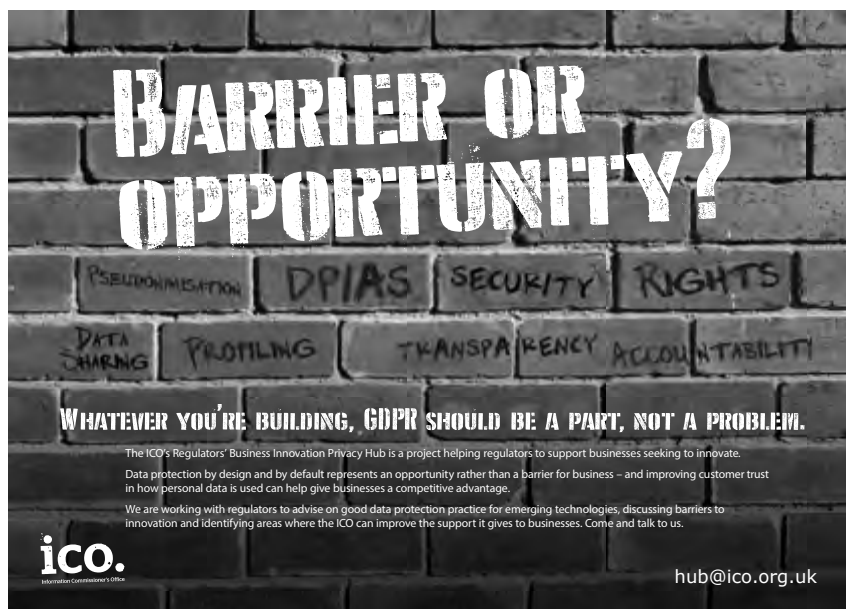
The Innovation Hub logo was based on the image of a brick, reflecting the idea of data protection as something that should be 'built into' innovative products and services. Used to develop the Innovation Hub's documentation and templates, this idea was further expanded into a 'build your own brick' flyer which was handed to participants at the ICO's Data Protection Practitioner Conference in April 2019.



Innovation
Hub



Innovation
Hub



Assessing risk

<ul style="list-style-type: none"> • Perception that the Innovation Hub provides the full services of a Data Protection Officer 		<ul style="list-style-type: none"> • Creating clear terms and conditions
<ul style="list-style-type: none"> • Organisations believe that ICO advice constitutes approval of a product, or an organisation's data protection practices 		<ul style="list-style-type: none"> • Setting expectations early
<ul style="list-style-type: none"> • Regulators do not see the value in collaborating with the ICO, or being able to take the opportunity to do so 	<p>Mitigated through...</p>	<ul style="list-style-type: none"> • Communicating about the tangible benefits • Targeting engagement
<ul style="list-style-type: none"> • Danger of the ICO's enforcement powers discouraging organisations from participating 		<ul style="list-style-type: none"> • Increasing Innovation Hub presence at external events to promote our advisory function
<ul style="list-style-type: none"> • Burdensome paperwork and processes dissuading companies from participating 		<ul style="list-style-type: none"> • Negotiating with the stakeholder • Iterating processes

Collaborating with regulators

As well as being set up to support innovation, the level of direct collaboration required between the ICO and other regulatory bodies meant that the Innovation Hub project model was itself innovative.

We built our work on effective engagement, with successful collaboration founded on good rapport, open dialogues and clear, mutually-agreed expectations with the appropriate decision-maker.

Regulators in receipt of funding from the RPF were prioritised, but not all the projects involved processing of personal data. We identified other relevant opportunities where the Innovation Hub could provide support to regulator initiatives relating to business innovation, including international regulators. This ensured that we fully used our resources, as well as broadening the project's reach.

We attended a number of cross-regulator events and meetings to increase the project's profile and establish new relationships with other stakeholders. This included taking part in discussions with other RPF project leads, engaging with the UKRN and the BEIS Regulators' Innovation Network, and facilitating a discussion session at the Regulators' Forum on perceived regulatory barriers to innovation.

Collaborating with other regulators has proved to be not just valuable but essential in achieving the project aims, and beyond. ‘Soft engagement’, particularly seen in the Innovation Hub’s work with health sector regulators, is effective in ensuring that data protection considerations remain a priority in discussions.

By proactively working together, regulators can identify areas of overlap, join up key messages, and understand each other’s role in a way which benefits both their own work and that of the businesses they oversee.

Because personal data is often a key component in innovative products irrespective of sector, the Innovation Hub has sought to develop a collaborative approach on data protection across a wide range of regulatory bodies. We have been directly involved with events and discussions – from observer status on steering and advisory groups through to providing real-time advice to businesses producing products at live events.

This approach has raised awareness of the ICO’s role with both regulators and businesses, and has allowed promotion of the concept of ‘data protection by design and default’ in a much more effective way; joining with other regulators to identify when the creator of a product or service might benefit from some early input on data protection matters.

External engagement has also benefitted the ICO as whole. Connecting with businesses on the leading edge of innovation has given great insight into what is in development, and what is on the horizon – in both technology and culture. Anticipatory regulation becomes possible when the regulator is informed about what to anticipate.

“The Hub’s input was valuable for refining our assessment of the potential data protection risks posed by our proposed initiative and our proposals to mitigate them in the design of the initiative, and supporting our assessment when discussing internally.”

– Ofcom

Advising businesses

The work of the Innovation Hub falls under what Nesta refers to as ‘[anticipatory regulation](#)’, which is described as ‘an emerging approach that is proactive, iterative and responds to evolving markets’. We have achieved this by engaging with regulators and businesses at an early stage in a product’s development to ensure that data protection is built-in from the start. By working through other regulators, this message can achieve cross-sectoral reach.

We found that most of the businesses who received the Innovation Hub’s advice took their data protection obligations very seriously. It remains a controller’s responsibility to ensure compliance with the GDPR, and by using a ‘data protection by design and default’ approach, businesses can reduce the risk of things going wrong due to a lack of due care, and possible ICO enforcement.

We built a suite of documents and templates to explain the service that the Innovation Hub offers to regulators and businesses. It was necessary to achieve a balance in protecting both

parties' interests whilst avoiding confusion or even a reluctance to engage with the project. Some stakeholders welcomed the legal certainty that this documentation brought, but others found the process off-putting and onerous.

In some cases this resulted in documents being unread and some promising collaboration stalling – either because of concerns about the language used, or an understandable reluctance to be bound to conditions put in place by another organisation. Start-ups are unlikely to have easy access to legal advice, while regulators have their own operational and risk frameworks which they have to adhere to.

While it remains necessary to have some kind of mutual agreement in place, it was not as simple to implement this process as first thought. Having recognised that the introduction of further legal and cost considerations could itself pose a barrier to participating in a valuable innovative project, we are reviewing our terms and conditions to see how we could improve this process in future.

The Innovation Hub is an example of the work the ICO has been doing to improve standards of information rights practice through clear, targeted and inspiring engagement and influence. While enforcement of the law is one of the ICO's responsibilities, our primary goal is to help organisations get it right. Our engagement work has highlighted to a number of sectors that the ICO is here to help and educate.

“The Innovation Hub helped us make clear decisions about data processing, informed by advice. I believe that the processes we have in place are simplified as a result of the conversations that we had with the team.”

– Mencap, on the SRA Legal Access Challenge

Demonstrating impact

The Innovation Hub submitted success metrics to BEIS on a quarterly basis, including the number of regulators and businesses we had engaged with, pieces of advice we had given and our communications activity. However, we also recognised the value in seeking qualitative feedback from stakeholders. This is particularly relevant for an organisation like the ICO, which does not formally authorise or approve products for market and therefore cannot measure its impact in this way. As the work of the team continues to develop and its contact with innovative businesses and organisations increases, the clear impact and benefits of the Innovation Hub's work will grow.

Next steps

During the funding period the ICO decided to retain the Innovation Hub and its functions on a permanent basis, and it now forms part of the Technology and Innovation Service.

We will therefore be able to continue several of our ongoing projects:

- Support of the FCA Sandbox and Direct Support functions.
- Engagement with Open Banking, open finance and other proposed open ecosystems, such as open communications.
- Assisting recipients of the Nesta [EdTech Innovation Fund](#) and [CareerTech Challenge](#).
- Advising participants in the Lawtech UK [Lawtech Sandbox](#), a collaborative initiative between Tech Nation, the Lawtech Delivery Panel and the Ministry of Justice.
- Work with [Machine Intelligence Garage](#), the innovation programme driving machine learning and artificial intelligence development in the UK.
- Continued engagement with the Gambling Commission on Single Customer View and associated work.
- Involvement with health sector regulators, including the MHRA and NHS projects designed to support development and use of AI.

The ICO is supportive of initiatives that give people access and control over their data, improved choices, and a greater variety of services. We remain committed to promoting the message that data protection and innovation are not mutually exclusive. Data protection can provide an opportunity for businesses to uphold individuals' rights whilst gaining a competitive edge through increased consumer trust.

No longer externally-funded, the Innovation Hub has widened its remit to include seeking collaboration with organisations that are not regulators but can achieve similar sectoral reach. This includes universities and higher education institutions, Catapults, and public-private innovation partnerships. We have already taken preliminary steps to initiate some of these relationships.

From a wider standpoint, we will also continue to investigate how to better leverage cross-regulatory working, and how to streamline regulatory functions to encourage innovation. This will involve developing relationships with individual regulators or groups of regulators, and continuing to participate in initiatives such as forums and cross-government working groups.

“The Innovation Hub is of extreme value to other regulators as well as to individual companies as it shines the ICO in a much more ‘business partner’ light leading to cooperation and better GDPR compliance from the start, which has to be in everyone’s best interests.”

– Law Society of Scotland

“The theoretical input into our work as well as ICO presence and engagement have been invaluable for us and the industry so far. We welcome collaboration and cross regulatory conversation around best practices, challenges and opportunities.”

– Gambling Commission

Ten top tips for innovators



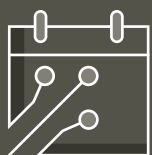
Do you need to build data protection into your innovative product or service? Here are our ten top tips to help you out – each tip includes links to our more detailed guidance.

1.



Data protection is good for business. Building the [data protection principles](#) and [information rights](#) into your product is an advantage in the marketplace, encouraging customer confidence and lowering your risk of enforcement action.

2.



Data protection will remain relevant, even as technology advances. Placing [individual rights](#) at the centre of your product development makes upholding them easier.

3.



Education is key. If you intend to process personal data, you must be aware of your obligations under the legislation. Why not start with the wealth of information and guidance materials [produced by the ICO](#)? You could also seek additional training or expert guidance to ensure your understanding of the legislation.

4.



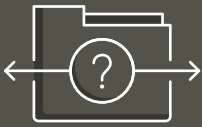
Take a 'data protection by design and default' approach. To save yourself headaches further down the line, data protection compliance should be built into your product from the start. [Data protection by design and default](#) is a legal requirement of the GDPR – putting in place the appropriate technical and organisational measures to implement the data protection principles, and safeguarding individual rights.

5.



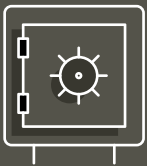
Carry out a DPIA. If you are looking to process personal data in innovative ways or use a new technology, a [Data Protection Impact Assessment](#) might be obligatory. If you identify a high risk that you cannot mitigate, you'll need to consult with the ICO prior to starting your intended processing. And even if it isn't legally required, a thorough DPIA can be a great way to identify and address risks associated with your product.

6.



Decide what you are doing with data. Clearly frame the problem you are trying to solve, work out your [lawful basis](#), and only then decide what personal data – if any – you need to collect. Never hold data 'just in case'.

7.



Open it up – and lock it down. New technologies open up fantastic opportunities for consumers through [data sharing](#) and [data portability](#). But you must tell them where their data is going and why – and use [appropriate security measures](#) to stop it going anywhere else.

8.



If your product uses AI, know your obligations. These include [explaining to individuals](#) how their personal data will be processed, and complying with requirements on [automated decision-making and profiling](#).

9.



Consider using synthetic data. If you are testing a product, there are [anonymisation](#) and [pseudonymisation](#) techniques available to protect individuals in large datasets. Synthetic data may help to lower risk if it suitably reflects real-world data. If you really can't do either and need to use live data, [document your decision-making](#) so that you can demonstrate that you are taking people's privacy seriously. Limit what you use and put measures in place to minimise the impact of things going wrong.

10.



The ICO can help. If you need advice you can get help and support from the ICO through a range of options, including the [Advice Service for Small Organisations](#). Look out for the [ICO Sandbox](#) accepting applications from organisations seeking hands-on support. And if you are already working with another regulator in your sector, the [Innovation Hub](#) may be able to assist.